

ESTABLISHED IN 1861 THE AMERICAN BEE JOURNAL OLDEST BEE-PAPER IN AMERICA

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NO. 26.



Another Volume of the AMERICAN BEE JOURNAL is completed with this issue. Next week we will commence Volume XXXIV. How rapidly the weeks and months—yes, years—roll on! It seems but yesterday that we announced the close of Volume XXXII, and the beginning of the volume that is finished with this number. But such is life. We are all hastening onward, and the increasing “volumes” of our lives are fast being written as Time speeds on his way.

A Visit to Dr. Miller's.—On Saturday, June 16th, we visited Dr. Miller, at Marengo, Ill., remaining until Monday morning. It is quite needless to say that we had a most enjoyable time with the Doctor, his good wife, and his indispensable helper and sister-in-law, Miss Emma Wilson. Yes, and the bees were not overlooked, though they were “looked over.” Next week we will endeavor to tell something about our trip and visit, which we are very certain will be interesting to all our readers, for Dr. Miller, you know, *belongs* to bee-keepers, and whatever he says, or is said of him, is always read with much interest.

Clipping the Queen's Wing.—In the *Review* for June, Mr. O. H. Townsend, of Michigan, gives Mr. Frank Benton's manner of clipping queens, as follows:

When the queen is found, pick her from the comb by the wings with the right hand, then pass her to the left hand, holding her with the thorax, or “shoulders,” between the thumb and forefinger, then clip her with the scissors in the right hand. In this way a queen can be clipped every time just as one wants her clipped.

When clipped, take her by the wings with the right hand, and place her back on the comb near where she was picked off—and in nearly every case she will act as if nothing had happened.

The only trouble with the inexperienced is they are so afraid that they will hurt her that they are not likely to hold her firm enough. She should be held firmly enough so that one can at least *feel* that they have something between the thumb and finger.

A Complete Index to Vol. XXXIII of the BEE JOURNAL will be found in this number. It involves a great deal more labor to publish such an index than most people ever dream of, but when its value and convenience is considered, of course it amply repays all the effort and time expended upon it. We trust all have preserved the preceding numbers of this volume, so that now, with the help of the index, they may be able to refer to every important subject that has been considered in these pages during the past six months.

“I am well pleased with the AMERICAN BEE JOURNAL. I don't believe I could do without the help of the paper, and it is the cheapest and best bee-paper I know of.” Ezra L. Troutwine, Pennsylvania, June 1, 1894.

Bee-Disease is Disappearing.

Prof. Cook, writing from Claremont, Calif., on June 13th, about the bee-paralysis which has been very prevalent the past spring in his locality, said this in regard to it:

I am very glad to write that the "bee-disease" seems to be *rapidly* on the wane. Colonies that seemed very bad two or three weeks since, seem nearly or quite well now. One of my colonies is quite bad yet; but I think it is also mending. I think the disease is to be transient. A. J. Cook.

We hope the Professor is correct in thinking that the disease "is to be transient," though even a "transient" disease may do much damage sometimes. Perhaps a successful treatment may yet be found, however.

The Foul Brood Book, by Dr.

Wm. R. Howard, received generous and thorough reviews at the hands of Bros. Hutchinson and Hasty in the *June Bee-Keepers' Review*. It is surprising to note the many kind words that book has called out. Dr. Howard should feel satisfied when he thinks of all the good things said about his little book. Every bee-keeper should read it, and then he will know for himself its valuable yet concise manner of dealing with the subject of foul brood. Only 25 cents, postpaid. Orders received at this office.

New Enemy to Bees.—Mr. K. R.

Mathey, in *Gleanings*, some time ago wrote thus about a new enemy to bees:

The worst enemy of the bee is, according to a new naturalist, the thick "humpbacked fly," *Phora incrassata*—a black little fly with a well-defined hump. It has lately been observed in Germany, and also in Russia and Sweden, as a terrible enemy of the bee-brood. This insect sneaks into the hive at the first opportunity, seeks out a still unsealed cell in which the queen has laid an egg, and from which the larva has lately emerged, and then, by means of a long ovipositor, inserts an egg of its own under the skin of the immature bee. This egg possesses a terrible tenacity of life; for after three hours this larva creeps out and bores itself deep into the fat of the bee-pupa, and the cell meanwhile is capped with wax.

After 48 hours the larva of the phora sloughs its skin for the first time; but at the end of another day and a half it goes through the same operation again. A pupal existence of 24 hours suffices to give it a bodily length of a tenth of an inch. Now the creature sheds its skin the third time, makes its way toward the larva of the bee,

devours the rest of it, bites through the wax capping of the cell, and creeps out of the hive at the entrance, to seek the ground outside in order to pupate, and from the pupa to become a perfect fly. If this does not succeed, the transition from stage to stage takes place in the hive itself—the worst thing possible for the bees, for the newly-hatched phora does irreparable mischief, so that the colony perishes.

✎ "Ever since I have been receiving the BEE JOURNAL it is the first and last paper that I read through the week. No one can appreciate it more than I do."—Geo. Spencer, of Kansas, May 26, 1894.

A Swindling Firm.—In the *American Bee-Keeper* for June, we find this editorial item:

The Wm. Penn Bargain House, whose advertisement appeared in our columns some time ago, has turned out to be a swindling firm. Our readers are cautioned against having anything to do with them.

We reprint the above for the reason that, unfortunately for us, the same firm had an advertisement in the BEE JOURNAL some time ago.

Bees by the Pound.—In commenting on an article on "Traffic in Bees by the Pound," written by Bro. Hutchinson for the *Progressive Bee-Keeper*, the editor of that paper says:

While it sometimes pays to buy bees by the pound, in most cases it is unprofitable both to the seller and the buyer. This we have always believed to be so, and have never offered bees by the pound, and when having inquiries for them, we have cited the parties to some one who advertised bees that way. Bro. Hutchinson expresses it thusly:

To rob the bees of their brood, or to rob the brood of sufficient bees to protect it, is like separating a man from his wife. We would as soon cut off the heat from an incubator full of half-hatched eggs, or pull a sitting hen off a nest of hatching eggs, as to sell a pound of bees that are needed in the spring of the year to protect and care for the brood. We believe that when a portion of the bees are sold, the same portion of brood should accompany them. We think it was Oliver Foster that gave away a piece of comb containing brood with every pound of bees sold. Although he advertised bees by the pound, he believed that the brood and bees should not be separated.

Great Premiums on page 803!



No. 74.—H. L. Jones.

Mr. H. L. Jones, whose portrait is here shown, lives in far-away Australia. He has kindly sent us his photograph, and with it a picture of his apiary, but



H. L. JONES.

the latter was not quite distinct enough for the photo-engraving process which we used in reproducing the portrait of Mr. Jones, hence we omit it.

Accompanying the pictures we received the following letter, and also an account of a reporter's visit to Mr. Jones' Mel Bonum Apiary, at Redbank

Plains, near Goodna, Queensland, New South Wales:

GOODNA, QUEENSLAND, April 13, 1894.

FRIEND YORK:—I send you to-day a photograph of myself, also a description and view of my home apiary of over 200 colonies, and also of my brother's fruit ranch. Perhaps this glimpse of apicultural life in far-off Australia will be interesting to you—at any rate I hope so.

I have another apiary about five miles away, stocked with Carniolan bees, which I am endeavoring to breed in their purity. I may also add that I started bee-keeping 13 years ago (aged 15) without a penny capital, and I never borrowed a penny, but sold honey taken from box-hives (bees I obtained from the bush), and strained through mosquito netting, until I got enough to buy a small novice extractor which cost me \$20. Frames were made from old cases ripped up with a hand-saw; hives, etc., ditto, and my present establishment (one of the largest in the Southern Hemisphere) is the result. Verily, I have much to be thankful for to the "busy little bee."

Yours sincerely,

H. L. JONES.

The "description" referred to by Mr. Jones is as follows:

A VISIT TO REDBANK PLAINS.

Noticing that I was looking a bit "fagged" a few days ago, the boss told me I might take a run out into the country for a day or so, if I liked. Of course, I could be on the lookout for "copy" at the same time—just as if a reporter isn't *always* on the lookout for copy! However, I was only too glad of the opportunity of spending a day or two amongst the trees. I should have to be hunting for copy about the Police Court and Divisional Boards in any case, so I gladly availed myself of the offer, and, after some consideration, concluded to pay a long-promised visit to Mr. Dan Jones, of Redbank Plains. You know the modesty of newspaper men is proverbial, and mine compelled me to be content with the borrowing of a buggy with only one horse. Certainly, failing the second "yarraman," I secured the services of the owner as driver. He asked me if I wouldn't like to have a "tiger" also, but my modesty would let me go that far, so I had occasionally to hold the reins while my charioteer got down to open gates or slip rails whenever required—there's nothing got in this world without trouble.

Well, we set out about 10 o'clock on

a beautifully bracing morning, with just enough chill in the air to make one enjoy life. Nothing occurred on the journey to mar the enjoyment, only the constant and ever-present fear of a breakdown. Such roads! It was like traveling down the bed of a dry creek, in many places. My heart went out in pity to the poor farmers, and to their horses for having to travel over such roads, until I bethought me that the former was responsible for them, in a great measure, by putting men on their Divisional Boards who do not know enough about road-making to make a decent track for a billy-goat.

As we got farther from home, my fears increased, and at last I ventured to ask my friend, the owner of the buggy, if he had formulated any scheme as to what should be done if we broke an axle. "Case of walking then," he said, whereupon I suggested that it would be a waste of energy for both of us to walk, and that if he would just borrow a saddle from some settler near at hand, I would be willing to ride horse-back, and he would then have nothing to trouble him. He said that was very good of me, but he looked at me as if he didn't quite think so. I think it would have been a good way out of the difficulty, besides it was a labor-saving idea. However, nothing of the kind happened, and at length, after a drive of about an hour and a half, we arrived at our destination, and were heartily welcomed by Mr. and Mrs. D. Jones. I superintended the work of unharnessing and stabling the horse—I like to be good to animals that serve us faithfully—and then we were invited to "come up stairs and have a look round."

Mr. Jones' house is built on a commanding eminence, and a magnificent view of forest, farms, hills and dales is obtainable from the balconies which "jut" out from each side of the building on the upper story. Here a splendid telescope was brought out, and the eye, by its aid, commanded a scene which it would take a small volume to describe. We were assured by our host that parts of the city of Brisbane can be distinguished on exceptionally clear days. While we were thus feasting our eyes with visions of Nature's loveliness, Mrs. Jones had been preparing a feast of another kind, to which we were summoned, and of which, after our drive, we were nothing loth to partake.

"That's Harry's place over there," said our host, pointing to a house on another hill—something over half a mile away. "Would you like to take a walk

over?" I was inclined to suggest to my fellow traveler that I didn't mind watching him yoke up, but a question as to whether there was a road fit for a buggy between the two places, brought such a look from him that I concluded the walk wouldn't hurt us. I was the more confirmed in this when he, not thinking how sharp a pressman's ears are, muttered something about unmitigated cheek!

"I'll tell Harry we will be over in about an hour," said our host. Pretty good lungs, thought I, and not afraid to use them; but I hadn't noticed then that there was a telephone wire stretched between the two houses. Harry was wrung up, and, after the usual "Are you there?" etc., "Mr. So-and-so and You-know-who from the *Advocate* will be over in an hour; get those bees of yours on their good behavior."

"All right;" and we were expected at the great bee-farm of Mr. H. L. Jones, of Mel Bonum fame.

Then followed a look around the farm and orchard. I was inclined to linger about the fernery, which is situated just off the verandah, at the rear of the house; it looked so invitingly refreshing, with its beautiful, delicate, lace-like greenery, as compared with the wintry-brown of the surrounding bush. But that awful word "copy," which rings in a pressman's ears wherever he may be, caused me to rise reluctantly off the lounge whereon I had thrown myself, and follow on. I stipulated to our host that he was not to ring in any of his lock-jaw botanical names on me, or I would go on a strike, and though in this respect "relations became somewhat strained," from force of habit, I suppose, he kept his covenant fairly well. I looked suspiciously at him once or twice—once when I got hold of a, to me, new kind of vegetable all covered with spines, and inquired its name. "Choco," and, noticing my look, "no that's all right; that's its common or garden name." I didn't like to show my ignorance after this, and, though I suspected him of backing down on me now and then, I never let on, but asked questions, and gained an immensity of knowledge of fruits and vegetables of various kinds.

There can be no two opinions about Mr. Jones' enthusiasm as an agriculturist and horticulturist, nor of his unselfishness in experimenting with plants of various kinds, and giving the results of his experience with them to others. He has done good service to Queensland by demonstrating the capabilities of her

soil and climate, as well as by his entertaining and instructive writings on matters of interest to settlers on her lands. This he has done at considerable pecuniary sacrifice, for the losses are his own, while the successes are shared by his fellow colonists, or such of them at least as choose to profit by his work, for he does not put his light under a bushel when its illuminating powers would be likely to benefit his fellow-men.

I am not going to attempt a detailed description of all I saw or learned, in this article—space in a newspaper is limited, while the capacity of the receptive mind is increased and increases with each new idea, on fact, it lays hold of.

"Punctuality is the thief of time," or something like that, says the proverb, and the time was near for our appearance at Mel Bonum. Arrived there, we were met by the genial proprietor, who first showed us over his store, in which he keeps supplies of all the latest novelties connected with any incident to successful bee-farming, from all parts of the world, and very interesting I found his explanation of the different devices for carrying on the business.

"Come along," says the Irrespressible D. J. (What veritable steam-engines for energy those dwellers in the country are, to be sure.) But I was comfortably seated, and not inclined to move for a bit; just walked half a mile, you know, so I said, "How did you get on at Sydney, Harry?" Mr. H. L. had only returned on the previous evening from the city of "our beautiful harbor," whither he had been to attend a conference of bee-masters. "Oh, pretty well on the whole; there were about 70 representatives present, but I don't think Queensland has much to learn from the other colonies in the way of bee-keeping. They are certainly behind us in the matter of "strains;" that is, we have here a greater number of different breeds than they have. At the same time, an interchange of ideas and experience such as is to be gained at such meetings must be of benefit to all concerned.

The next thing to which our attention was directed was a honey extractor, constructed so as to hold four large frames of comb at once. It's an extractor all right. In the same room we were shown a high pile of wax, which is used for making "foundation" and other purposes. While we were examining these things, the proprietor was getting his "smoker" ready. We came out, and I at once proceeded to get my smoker to work. I don't know what he loaded

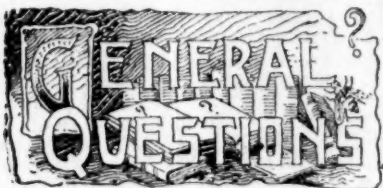
with; mine was "rough-cut, Queensland leaf only." A few puffs from the bellows, at the mouth of the hive, and off comes the top. "Would you like to see the queen?" Of course we would, but didn't want to quarrel with the body-guard. Two or three frames were lifted, and at last her majesty was discovered, going in and out amongst her subjects, a real mother to her people. "That's a pure Italian," we were informed. We didn't like her any the better for that; we would have preferred an Australian. "Have you an Australian queen?" I said. "Well, you might perhaps call the acclimatized English bees Australian, but the queen is easily distinguished from the others. Of course, there are the native bees, but they are not cultivated."

"I suppose an Australian queen would be black," said I. I fancy my companions thought I meant a joke, for one of them nearly upset a hive in his haste to get out of the way of it. However, we were shown all around, and the qualities of the different kinds of bees were explained in a way that showed our tutor, for the time being, was master of his subject. There was the "Carniolan" from Austria, the "Punic" from North Africa, and "Italians" imported from Italy and America. Mr. Jones is the only bee-master in Queensland who has the Carniolan strain, and the only one in the whole of Australia who has the Punic. He does an extensive business in the different strains, sending queens all over Australia and Tasmania. There are between two and three hundred colonies on the farm, and the quantity of honey turned out must be something enormous.

We were shown some very neat and novel cans and jars for packing the honey in, some of which were provided with air-tight caps. The honey is put on the market in a most taking form, and commands a ready sale. Supplies of all bee-keepers requisites are kept on hand, and sent to any part of the colonies as ordered. Altogether, my day's outing proved most pleasant as well as profitable, and any one in search of information on agriculture, horticulture, or apiculture, can easily find it amongst the Joneses of Redbank Plains.

Our journey back was uneventful, but pleasant memories will linger long on the day I spent with genial companions amongst the trees and humming bees.

Have You Read the wonderful Premium offer on page 707?



ANSWERED BY
DR. C. C. MILLER,
 MARENGO, ILL.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—Ed.

Sweet Clover.

1. I inclose herewith a weed that I am very anxious to know what it is. It is surely the finest bee-pasture in this part of the country. Only a few bunches are growing on some of the back lots. Some here call it "sweet clover."

2. Where can the seed be obtained?
 Leonardville, Kans. J. N. T.

ANSWERS.—1. The plant you send is mellilot or sweet clover. The flowers on this are yellow, the ordinary kind being white. I think I have seen it stated that the yellow is inferior, as a honey-plant, to the white, but I know nothing of this personally, as I have never seen but a few plants of the yellow.

2. The seed has been regularly advertised in this journal by Thomas G. Newman.

Origin of Honey-Comb and Propolis.

1. Where does honey-comb come from?
 2. Where does propolis come from?
 Brown City, Mich. G. V.

ANSWERS.—1. Some years ago a certain Dr. Cox advanced a theory that honey-comb is a growth of a certain kind, not made by the bees, but making a kind of spontaneous growth in the hive, even in the middle of winter, although it may have been stipulated that in order to secure growth in winter it must be in the cellar.

This theory, however, never gained very wide credence, and it is not a very hard matter for you to convince yourself as to what is the truth in the case. Honey-comb is manufactured by the bees, and you may watch them at work

at it, adding the wax, bit by bit, and fashioning it into proper shape with their mandibles or jaws.

A little observation will also enable you to satisfy yourself as to where the material for making the comb is obtained. When bees are busily engaged at comb-building you may find scattered on the floor of the hive and on the alighting-board, little white scales somewhat pear-shaped in form, and these thin little scales are pure beeswax. Now keep a sharp lookout and you will see many of these same wax scales sticking along the under side of the abdomens of the workers. They seem to grow there, or to be more exact about it, they are secreted there. Somewhat as a cow eats grass and it turns into milk, a worker-bee eats honey and it turns into these little scales of wax which seem to grow in the wrinkles of its abdomen.

2. Propolis comes off the legs of the workers. Did you never see a load of it carried in or on their pollen-baskets? Possibly you called it pollen, but look more closely and you'll see the difference. It is smooth and shiny, which pollen is not. The bees gather it in various places, being thankful at times for a ready supply furnished them by you when you scrape it off some part of the hive and throw it where the bees can gather it up again. But the principal source of the supply is probably the resinous gum that is found on the buds of various trees, notably on the Balm of Gilead.

Managing Bees in "Gums," Etc.

1. How shall I manage my colonies? They are all the little black bees, in the old-fashioned round and square gums. How can I separate or catch the queens, as I wish to order the Italian queens, this month?

2. How many workers can be sent by mail with a queen at one time?

Senia, N. C.

M. T.

ANSWERS.—1. I doubt whether it will be advisable for you to try to change to Italians till you have at least one colony in a hive with movable combs. Still it can be done, and to answer your question directly, you will have to drive the bees out of the hive before you can catch the queen. Turn the hive upside down, set a box over it, having cracks between stuffed with rags or closed in some way. If too hard to make a fit otherwise, you can place a board or boards over the hive, having as large an opening as possible for the bees to pass up through.

Now drum steadily on the hive, and you will tell when the bees begin to travel up, by the loud humming they make. After ten minutes or so, raise up the box a little and see if most of the bees are up. At this time the bees will not be likely to be resentful even if some of them do get out. If you find not many have gone up, drum away a while longer.

Now dump the bees down on a sheet in front of another box or empty hive at a distance of a few feet from their stand. While they are marching in, keep on the lookout for an "old lady" dressed in a "polonaise." If you don't see her, perhaps it will be well to repeat throwing them down on the sheet, for you may have missed seeing her, or it is possible she is yet among the few bees left in the hive, in which case you must drum some more, and it will be hard to start these few bees. By the time you find this one queen you'll very likely decide it would be easier to get the colony in a frame hive.

2. From a half dozen to twenty workers generally accompany a queen in the mailing cage.

Feeding Would Have Paid.

On May 22nd, as I wrote to the *BEE JOURNAL*, my hives were full of brood and bees, and nectar was being stored rapidly from fruit-bloom. They were ready for swarming and did commence on that day.

The next day brought us rain and cold, and we have had the same 16 out of 18 days since. The weather has been so cool and wet that the bees could not visit the flowers, although they might be well filled with nectar. This weather brought "the reverse." Swarming ceased. The bees fell to killing the drones and pulling out half-hatched brood. This was supplemented by robbing, which I held in check by banking the entrances to the hives with wet hay, sprinkled with kerosene.

To-day it is sunny and warm—the 1st good bee-day for the last 18 days. The effect on my bees is very marked—no drone-killing, no pulling dead brood, and no robbing. I had to feed my new swarms. My old colonies managed (under difficulty) "to paddle their own canoe." Should I have resorted to feeding?

J. P. S.

Sunapee, N. H., June 9.

ANSWER.—Yes, feeding would have paid well. The probability is that the bees were short of stores. They might

drag out drone-brood with plenty of stores in the hive, and if none but drone-brood were destroyed the feeding would not make so much difference. Indeed the destruction of the drone-brood might be some advantage, but I suspect there was some killing of worker-brood also, and that is not likely to occur with plenty of stores in the hive. This young brood is valuable, for it is to make bees to be on hand in good time to help in the harvest.

I've often used wet hay at the entrance to stop robbing, but sprinkling it with kerosene is a new kink. It may be a good thing.

Buying Bees—Flower-Beds.

1. In accordance with Mrs. Atchley's views in relation to the proper time to buy a colony—before the fruit-bloom—hence, as I have not the spare acre of ground for bee-pasturage, as you specified, and anyone would be more than likely to accept it, that this was what was really required; if so, is it altogether too late to realize a profitable season, or anywhere near what I would if I had purchased a colony in the spring? In case there is a chance for me to make a reasonable margin of profit or remuneration for my labor, would 8 pounds of clover seed be any way near adequate to sow along the roadside, ditches, etc., to make up for the acre, as you suggested? or would you sow considerably more, to make sure?

2. Although ours is a great potato-growing district, as I stated on page 650, and as you suggested that Nature did not offer much nectar in potato posies, I would inquire how it would be with flower-beds, when nearly every neighbor possesses one? M. L. B.

Orient, N. Y.

ANSWERS.—1. Notwithstanding some advantages in buying bees earlier, you may do well to buy them now rather than to wait till next spring, for you will have that much more experience to start with next spring.

2. As a rule, it is not well to count much on flower-beds. A large number of the flowers that are cultivated for their beauty offer little or nothing to the bees. Many of them are what botanists would consider a kind of monstrosity, as cultivation has made such a change in them that they have not the same organs as they originally possessed, hence do not furnish the same nectar and pollen. Many roses, for instance, have had their

stamens and pistils changed into petals, making them worthless for the bees.

But oftentimes there are sources of honey within reach that the bees promptly find, although they may have entirely escaped your attention. And some of the garden flowers—mignonette, phacelia, etc., are rich in nectar.



CONDUCTED BY
MRS. JENNIE ATCHLEY,
BEEVILLE, TEXAS.

PROFITABLE BEE-KEEPING.

Lesson No. 5.

(Continued from page 781.)

REARING QUEENS EXTENSIVELY.

I forgot to tell you in last lesson that you could dip cells and rear queens in upper stories as per Mr. Doolittle, and fine queens can be reared that way.

Well, if we wish to rear queens largely, and have all good queens, the same as natural swarming, we will take the following plan, which is our latest, to-wit:

We dip our cells, as per Doolittle, except we have a small part to the bottom of the queen-cell stick just the size of a worker-cell, about $\frac{1}{8}$ of an inch long, then when cells are dipped, there is a little sink in the bottom just right to take the cocoon from the bottom of a worker-cell. We place an old, tough comb in our breeder's hive, and when we get larvæ hatched in the comb, the younger the better, we use them just as quick as we find the eggs have hatched.

We now cut out a piece of comb containing just about the amount of larvæ we wish for this present work or time, and take a sharp razor and shave down the cells just as low as possible not to disturb the larvæ. Then take a small pair of watchmaker's tweezers and remove the cocoon, little larva, and all, and put it right down firmly in the little

sink made to take it when the cells were dipped. All this we do sitting on a box or stool, right by the side of the hive made ready to take the cells.

Place them right on the combs, just under the sealed honey, or in a rainbow circle over the comb, so as to be in the midst of the nest, and when the bees are properly prepared, made broodless, and queens on the combs of honey for from 12 to 48 hours, we get two-thirds, on an average, of all our cells saved, and all as fine queens as by natural swarming, or by any other plan I ever saw.

The little larvæ get no check at all, are out of the hive but a few minutes, and the bees are not even shaken off the combs where the cells are placed, and the bees at once (yes, before we get them all stuck on the combs) attend to them, and we can by this plan get the most even lot of cells and queens of any plan yet tried.

To prepare the colonies, we select some that we have good reason to believe are good cell-builders—those that are good honey-gatherers and working finely, and are prosperous. Take away all their brood and queen at about night-fall, and let them remain so until about noon the next day, on an average; some we graft in sooner, say in the morning early, and some are not ready until the second day. Any way they are ready when they show the queenless sign, and mourn. Just as soon as their hive is opened, and queen-cells can be seen about here and there, and near or about the pollen, if they have any, then they are ready.

In this way we prepare from five to ten colonies at night, and lately we have succeeded in getting 19 out of 20 cells saved in one strong colony, and if care is taken in selecting the very *smallest* larvæ, the queens will all hatch out at about the same time, and all are built out about the same length, and are fine indeed.

We are having hatched at this writing (June 4th) about 50 queens daily, and our queens are mated at the proper time, large and prolific, and I believe this the nearest after natural cells of any plan yet known, and I believe nearer all good queens, as we sometimes have little, stumpy queens by natural swarming as well as other ways.

There are so many ways to start queen-cells that I have thought best to give the only one giving us the best results, and by this method we can rear all the queens we need, and the old queens can be caged and then introduced back to their colonies when the cells

come off, if you so desire, as the colonies that have built the cells can be broken up into two-frame nuclei to take care of the cells, as they seldom ever tear any cells down.

We *must* be sure to move the cells the day before they hatch, or great danger will befall them, as the bees will swarm, or the first queen will tear all down.

Now, to get the time the cells will hatch, count three days in the egg, one day larva, and 12 days from larva to hatching queen, and we have 16 days. But to make sure that we do not "get left," we mark our cells to hatch on the eleventh day after the grafting is done, and take them out on the tenth day, and put them into nuclei and mark them to hatch in two days, etc. This is a sure way to not "get left," for by this plan the queens surely hatch on the 12th day after the grafting is done, and it won't do to leave them longer than the eleventh day, at most.

Now we know how to rear queens on a small scale and on a large scale, and know how to transfer, produce comb and extracted honey, etc.

In the next lesson I will give the diseases of bees, and try to prepare you to meet the disappointments that may occur along the line, and we must know that there is no business without its "ups and downs."

JENNIE ATCHLEY.

(To be continued.)

Convention Notices.

WISCONSIN.—The next annual meeting of the Wisconsin Bee-Keepers' Association will be held at Madison, on Feb. 8th and 9th, 1895.
Madison, Wis. J. W. VANCE, Cor. Sec.

NORTH CAROLINA.—The Carolina Bee-Keepers' Association will meet at the Court House in Charlotte, N. C., on July 19, 1894, at 10 a.m. All interested in the culture of the honey-bee are cordially invited.
Steel Creek, N. C. A. L. BEACH, Sec.

PENNSYLVANIA.—The Venango County Bee-Keepers' Association of northwestern Pennsylvania will hold their 2nd annual meeting in the City Hall at Franklin, Pa., on Jan. 28, 1895, at 1 o'clock p.m. All interested send for program.
Franklin, Pa. C. S. PIZER, Sec.

TENNESSEE.—The next annual meeting of the East Tennessee Bee-Keepers' Association will be held at Whitesburg, Tenn., beginning on Thursday, August 16, 1894. All members and other interested in bee-culture are invited to attend.
Sneedville, Tenn. H. F. COLEMAN, Sec.

One-Cent Postage Stamps we prefer whenever it is necessary to send stamps for fractions of a dollar. By remembering this, you will greatly oblige us.



Empty Comb in an Average Colony.

Query 929.—About how much space of wholly empty comb is there in an average colony in the natural condition—that is, with an unlimited quantity of stores—just before the honey-flow in Northern localities? Please answer in Langstroth frames and fractions thereof.—Subscriber.

I don't know.—MRS. L. HARRISON.

I doubt if there's any rule about it. Ought there to be any?—C. C. MILLER.

It depends upon the location, the season, and several other conditions.—H. D. CUTTING.

The hive is usually nearly full of brood, pollen, and honey—say $\frac{3}{4}$ full.—P. H. ELWOOD.

Practically none in this locality, as "the honey-flow" is from linden here.—G. M. DOOLITTLE.

Very little. The amount would fluctuate greatly, according to circumstances.—J. A. GREEN.

No empty space, if the colony is healthy, has a good queen, and unlimited stores.—DADANT & SON.

Probably about one-fourth of the brood-comb will be empty. But, I like to have all the brood possible hatching at this time.—W. M. BAGNUM.

A very small number of cells out of which bees have issued, and in which the queen has not had time to deposit another egg.—J. H. LARRABEE.

I do not know. I cannot see, however, how there could be any space in the combs of a colony that had "an unlimited quantity of stores."—EMERSON T. ABBOTT.

I try to have all the brood that I can get in 16 Langstroth frames, and then just as the white clover appears, put on an additional set of eight empty frames.—E. FRANCE.

I have never examined into this matter at all, but should suppose ordinarily that there would be very little room in the

brood-chamber at this time, but bees would be constantly emerging from the cells, and the cells thus emptied would be filled with honey. As to room for surplus, much would depend upon the honey-flow.—J. E. POND.

Very little, if they have, as is mentioned, an unlimited amount of stores. A prolific queen would occupy all the combs with brood, except a little near the entrance.—S. I. FREEBORN.

I am quite sure that I do not understand the question. With an unlimited quantity of stores there would not be any wholly empty comb. No one can tell what the average is.—M. MAHIN.

For Langstroth-Simplicity we give a surplus department equal in capacity to the brood-chamber for extracting; for comb production, nearly one-half the capacity is given.—J. M. HAMBAUGH.

It depends upon how many frames in the hive. With a good average colony in a ten Langstroth frame hive, the amount of such comb should not be more than to fill one frame.—J. P. H. BROWN.

In a hive of proper dimensions there would be no *wholly* empty comb except the cells from which bees have just hatched, and these would not be empty long before the queen would find them.—G. L. TINKER.

There should be very little, with the right management. All the frames except those with honey and bee-bread should contain brood, which, by hatching, makes the empty comb and room for the queen to lay.—A. J. COOK.

I do not live in a Northern locality, and do not know. But sometimes bees in a natural and normal condition in this Southern latitude have nearly all their combs empty of honey at the beginning of a honey-flow.—MRS. JENNIE ATCHLEY.

There should not be any, except as hatching bees leave empty cells. All others should be filled with brood, pollen or honey. If the equivalent of one side of a Langstroth frame be ready for the queen, I think that sufficient.—EUGENE SECOR.

The question is exceedingly indefinite. With hives of ordinary size, after a fairly good spring as regards bloom and weather, a good, average colony should have its combs full, or very nearly so, of brood and honey at the opening of white clover.—R. L. TAYLOR.

The question is too indefinite to be answered with any certainty to meet the idea of the querist. "Unlimited quantity of stores," and brood, might fill

every cell in the hive, while a *limited* quantity of stores and brood might leave a considerable part of the combs empty. I give it up. A good colony in my apiary at the beginning of white clover, has seven or eight Langstroth frames of brood, with the other three or two frames partly or wholly filled with honey.—G. W. DEMAREE.

This may vary considerably, as bee-keepers are not at all agreed as to what constitutes "an average colony." In my guess I will say there should be nearly six frames filled with brood, and the rest, whether 8 or 10 frames, about half filled with honey.—C. H. DIBBERN.

I would guess about 30 to 40 per cent. But this is like guessing at the weight of an animal you have looked at previously, when you had no thought of its weight at the time of seeing it. The average person does not remember proportions, unless he examines with that intent.—JAS. A. STONE.

That all depends upon the strength of your colony. A colony may be a small one, and still be in a normal condition. If for a medium strong colony, and run for extracted honey, I would give full upper story of eight frames, placing a zinc queen-excluder between. If for comb honey, one tier of $4\frac{1}{4}$ -inch sections, and as fast as drawn out give another, providing the honey-flow continues.—MRS. J. N. HEATER.

Profitable Bee-Keeping, by Mrs. Atchley, will continue for some time in her department of the BEE JOURNAL, at least each alternate week. Until further notice we can furnish the back numbers from May 1st, beginning with her "Lessons," to new subscribers who pay \$1.00 for a year's subscription to the BEE JOURNAL—that is, we can commence their year with the number having the first lesson, if they so desire.

Good Honey-Sellers will likely be needed soon, and the little 32-page pamphlet, "Honey as Food and Medicine," has for years proven itself valuable in making repeated sales of honey. Its distribution will create a demand for the honey first, and then the bee-keeper can follow it up and supply that demand. Send to us for a sample copy, only 5 cents; 10 copies, post-paid, 35 cents; 50 copies, \$1.25; or 100 copies \$2.00. Try 50 or 100 copies, and prove their ability to aid you in disposing of your honey at a good price.

Read our great offers on page 803.



Hives at Experiment Stations, Etc.

Written for the American Bee Journal

BY DR. C. C. MILLER.

The article on page 724, by G. D. Littooy, makes me a little apprehensive. I don't want Hon. R. L. Taylor to die yet. He's a man I am proud to count among my friends—a man whom I can always fight when there is anything to fight about without any fear of strained relations outside of the particular fight on hand, and he's a man of eminent fairness and impartiality in making experiments. Now suppose the question is submitted to him, "What is the best hive in the world?" and it's publicly known that such question is before him.

How many different hives do you suppose will be sent him from all quarters? He would need an apiary of perhaps 500 colonies, to have just one colony in each kind of hive. He could have opportunity for little else but to watch those different hives throughout the season, and just as he came somewhere near a decision, the inventive geniuses all over the land would send in a fresh batch of hives, and that would continue season after season, if the first season didn't kill him.

I think we can hardly expect the experiment stations to take up that wide question, but each one of us must take our choice out of the few hives that are generally accepted by bee-keepers, letting improvements push to the front on their own merits, as they have done in the past. Of course it is all right for the stations to try anything that comes up new and promising, but we hardly ought to ask them to say which is the best of the many hives.

EXTRACTED HONEY.

Tell Bro. Sturtevant (page 726) I'll try to "fix it up with" Melbee. I believe in extracted honey, and have nothing but words of encouragement for the friends who "are trying to get extracted

honey where it belongs in the world." Bro. Sturtevant is himself on the right track when he's doing all he can to furnish the best quality of extracted honey, and I think that will get it where it belongs several centuries sooner than to ask 25 or 50 per cent. more than for the same quality of comb honey.

TIERING-UP AND CAPPING HONEY.

Isn't there a mistake in that assertion of Mrs. Atchley on page 717? She says: ".....as soon as the first crate is about full or completed, you can raise it up and place an empty one between it and the brood-nest. This will cause the bees to cap over the sections quicker, and give you nice honey." The plan is all right, but my experience is that tiering-up makes the bees slower at capping over.

Marengo, Ill.

Ripeness in Honey—How to Secure It.

Written for the "Bee-Keepers' Review"

BY R. M'KNIGHT.

The subject of ripening honey is receiving some consideration at present. It is a subject, too, that deserves consideration because honey is at its best when ripe. This implies that there is a time when it is unripe, and a possibility of its being over ripe. We know that honey is found, and sometimes marketed, in the three conditions above mentioned. But we do not all know the exact properties that constitute ripeness in honey, because no fixed standard of perfection has been decided upon, or one that embraces all the constituents of honey in their highest state. One, and only one, of the conditions that constitute perfection in honey is agreed upon and accepted as a standard of quality, that is, that it shall weigh at least $13\frac{1}{2}$ pounds to the gallon.

But the specific of honey is not the only test of perfection. Flavor and aroma are quite as important. Its density may decide its nutritive property; but it is the other two that make it grateful or otherwise to the sense of the taste and smell—in a word, that make it palatable. But people's tastes differ, and honey collected from different classes of flowers has a corresponding diversity of flavor; hence the difficulty in fixing a standard of quality for honey. I am now speaking of extracted honey, because its quality is determined by the three properties above named; not so

comb honey, however, because the flavor of the beeswax it contains masks the inherent flavor and aroma of the honey with which it is partaken. I do not mention color in this connection, because I am treating of the ripening of honey, and the ripening process has no appreciable effect upon its color.

I define unripe honey as that in which there is an excess of water; and ripe honey as that which has been brought to the recognized standard of density and possessing the highest possible degree of its inherent flavor and aroma. I say the highest degree possible, because the ripening process, whether carried on in the hive, or by artificial means, prejudicially affects both flavor and aroma.

Most honey, when first stored, has an excess of water in it. If the flow be scant, and it remains a sufficient length of time in the unsealed cells, this excess of water will evaporate, the high temperature of the hive facilitating the work of curing. If rapidly gathered it is quickly sealed, and will remain unripe until the excess of water escapes through the pores of the cappings in the form of invisible vapor. If extracted before the excess of water has passed off, the honey will be unripe honey. The fact of its having been sealed is not a proof of its ripeness. A little experience will enable one to tell if honey is up to the standard of density (without an instrumental test) provided its temperature is not too low. But it is not so easy determining this if the honey is cold, therefore the man who is in the habit of curing his honey outside the hive is more likely to put a uniformly good article on the market, than he who is governed by the sealing test.

We may now consider what changes honey undergoes in the process of curing, apart from bringing it to the requisite density by evaporation. The principal change, other than the above, is the partial dissipation of its aroma. What, then, is aroma? I think it may be defined as the property imparted to honey by the flowers in which it is secreted, manifesting itself mainly through the sense of taste, and this has something to do in constituting flavor, but only in so far as the sense of smell manifests itself through the medium of the mouth. It is chiefly by its aroma we are enabled to determine the class of flowers from which honey has been gathered. Aroma is fleeting in its nature. Time and exposure will destroy it to a great extent. Therefore, it is never so pronounced in honey as immediately after it has been taken from the flowers.

The process of ripening honey in the hive, and out of the hive, is identical in its nature and effect. When once ripe it should be immediately bottled or canned and hermetically sealed, if we wish it to retain its flavor and aroma in their fullest degree. If it be allowed to remain in open tanks or cans when once ripe, both will become deteriorated. It is nonsense to say, as some say, that honey can only be ripened in the hive, and retain its flavor and normal consistency. None who have made this statement have given any reasons for the faith that is in them, unless it be Mr. Demaree, and his are not conclusive.

Owen Sound, Ont.

Queens for Fall Work.

Written for the American Bee Journal

BY MRS. EFFIE BROWN.

On page 595, I find that H. G. Acklin has given his experience with Southern queens, and, as the editor, on page 232, requested all to do so, I will drop in my mite with the rest.

I must agree with Mr. Acklin, and others who have also written, that queens reared in a Southern latitude do not stand our cold weather and sudden changes as well as the Northern bred queens and their progeny.

Before I go any farther, let me tell those of the South, that I am not writing merely for the sake of opposition. I have only one purpose, and that is to help place the merit where I justly feel it belongs.

Through all that I have seen and learned of Southern Italians (I keep nothing but Italians), I have found them to be beautifully marked, and very well bred as to color. No doubt they are as nearly perfect as it is possible to rear them in their own latitude. They are great "hustlers" here during July and August, but in September they begin to fall.

I know some of you are saying to yourself now, that no wonder queens stop laying at that time; there is no honey coming in. There you are mistaken, for many bee-keepers here receive no surplus at all until buckwheat bloom, which comes just before the fall frosts. Then we have an abundance of goldenrod and other fall flowers for brood-rearing. For working on these and filling the hive with young bees late in the fall, I think there is none equal to the

queen whose mother came from imported stock, and was bred in the North.

I have always been of the opinion that bee-keepers spend too much useless worry over their bees in the spring, and not half enough of the necessary work in the fall. We all of us know how it is. We start out in the spring very enthusiastic, and can hardly think of anything else than our pets. More or less of them live and build up, and the honey-flow comes on. It is then work, work, work, from early till late. By-and-by we get tired, for it is hot, and the bees are cross, and when the flow ceases, we are, many of us, almost guilty of being glad. We look them over and see that they have a little honey, and likely enough do not examine more than two or three colonies again before we put them away for winter. We suppose of course that the queen is doing her duty filling the combs with eggs so that there may be a hive full of young bees for the winter, but many times she is not, and we have a weak colony or no colony at all for next spring. With us here in the North, where our winters are so long, I find that if we do less "fussing" with the bees in March and April, and more in September and October, we are dollars and cents ahead the coming season.

And to come back to the queens again, I find that a Northern bred queen will respond to the fussing a good deal better and quicker than her Southern sister; and her bees are more able and willing to help her out. For this reason, if no other, I prefer her even if I do have to sacrifice beauty just a little.

Eau Claire, Wis.

Storing and Fumigating Combs.

Written for "*Gleanings in Bee-Culture*"

BY G. M. DOOLITTLE.

Question.—I have about 800 empty combs. How can I protect them from the moth? and what is the best method of fumigating them?

Answer.—If the questioner wishes to keep these combs for an indefinite time, there is no way except to fumigate them and then store them where the female moth cannot have access to them. But if he or she expects to utilize them during the present month or forepart of July, fumigation may not be necessary.

My plan of storing combs from which the bees have died the previous winter is to store them in some dry, airy room, where they can be hung two or more

inches apart. In storing them I select out all that contain much bee-bread or pollen, and place them by themselves where I can use these first; and I select all having but little pollen in them, and place these where they will come to hand next after those first named; then I select all which are old and black, and have these next at hand, while those having been used but little by the bees for breeding purposes, and having no pollen in them, are left to be used last or latest in the season.

All white combs in which no brood has ever been reared, whether containing honey or not, and that have been taken from the hives during the fall, winter, or early spring, are also moth-proof, or, at least, I have never to my remembrance, had such combs disturbed by the larvæ of the wax-moth, where kept as above for any term of years; but when such combs are taken from the brood-chamber of the hive during hot summer weather, and stored away as above, then they may be troubled some.

Combs stored two or more inches apart, with those having the most pollen in them to the front, need not be looked after in this locality until June, when they should be examined; and if any fine webs are noticed about the cells containing pollen, these should be given to the bees as soon thereafter as possible. By about the 10th to 15th, look after those having little pollen in them, and by the 25th look after the old, tough combs; while those which the bees have used but little for breeding will rarely be touched before July 4th to 10th. In this way I have no difficulty in using all the spare combs I may chance to have, before the moth troubles them to an extent tending to injure them.

But if we wish to keep combs during a whole season or more, they must be fumigated, or else have been exposed to a temperature of about zero during the previous winter. Where this latter has been the case, pack them away in early spring in some box or closet which is moth-proof, and they will keep forever, or as long as the closet or box keeps, providing no female moth is ever allowed to deposit eggs on them.

To fumigate, place in a tight room, or in hives which will fit closely on each other, without bottoms, when we burn sulphur to the amount of a pound to every 400 cubic feet contained in the hives or room.

In sulphuring combs there is little fear of using too much sulphur; for should a deposit of sulphur occur on the

combs, thereby giving them a greenish tinge, it will not harm as it does on comb honey.

In sulphuring honey, *too much* care cannot be taken in guarding against the possibility of fire; for a room filled with the fumes of burning sulphur, is a poor place to extinguish what may prove to be a conflagration, unless extinguished in time. For this reason, an iron kettle, partly filled with ashes, with live coals on the ashes, with the combs so hung that none of them can melt and fall in the fire in the kettle, is the best thing to use to pour the sulphur on.

If you wish the combustion of the sulphur to be complete, too much must not be poured on too small a surface of coals, otherwise a part of the sulphur will not burn as it should.

Borodino, N. Y.

Condition of Bees—Reply to Mr. Kelly.

Written for the American Bee Journal

BY BRO. BEN.

Bees came through the winter without loss, bred up strong, and were on the point of swarming when a heavy frost on May 18th killed all the bloom, and stopped the honey-flow. Bees at once drove out the drones, and took out drone-brood; then began on worker-brood, which was stopped by timely feeding.

Bees are now working lively on honeydew, so-called. Long-continued drouth makes it hard to foretell what the honey-flow will be later in the season.

Mr. Kelly, why should you wish to provoke a quarrel with some poor old hayseed? (See page 566.) Why not tell some of the old bee-keepers who report heavy loss, to keep out of the business, as you do J. R. S.? I mistrust you dare not do so. Do not mistake me for a tenderfoot until you find out about it.

Your statement that no farmer ever did, or will, produce what he eats, is made without sufficient thought. Please tell us who had anything to do with the food supply of Adam and Eve after "the unpleasantness;" also in case of Noah and his family, after they left the ark. To say nothing of the New England farmers of early date, or the Southern farmers near the close of the late war, and the ten thousand other places in history to the same point.

Do I "ever stop to think of the dainties that find their way on the table of the good farmer?" No, really, I do not.

If it is on my table, they were put there to eat, and I head that way, and go into them under full sail, and when in their midst all the thing is reversed, and the dainties do the "going in," and soon there is nothing left to think about. Yet, sometimes, I think how foolish farmers are to buy foreign fruits when they can have a much better article for the raising.

Having some 60 or more varieties of apples, and many other fruits, and almost all the berries, of my own raising, I think I shall not suffer in that line.

"Coffee and tea" are *drinks*, my friend, and milk is much more wholesome, besides being a perfect food, as well.

"Salt" is a natural product, as I thought every person knew.

I am in good shape to have my own honey. I assure you, I do not go much on spirits for anything; I have a much simpler remedy always at hand for bee-bite, or snake-bite, either, and it costs nothing, and will cure every time, no matter which end they bite with.

That same common-sense you talk of in connection with cyclone's \$100 bills, ought to give farmers credit for being able to suit their fruits and products to their locality just as you would the dog to your game. You would not take a snipe-dog to tree a bear, would you? I would not advise Mrs. Atchley to grow whales for the oil to keep off cold in winter, nor the Laplanders to grow tropical fruits.

Look at your agricultural reports, and you will find all the cereals are raised by farmers. Sugar, the highest article in commerce to-day, is produced by the farmer (I refer to the maple), and we have the maple here. When you made your modification to J. R. S., you showed good sense, and when you look your article over on page 566, you will find there is no great difference between us. Why quarrel without a cause? Why discuss a question which does not exist, only in your own imagination?

Come, Bro. Kelly, let us "shake," and each continue in his own way.

Grant Centre, Iowa, June 12.

"Foul Brood: Its Natural History and Rational Treatment," is the title of an interesting booklet by Dr. Wm. R. Howard, of Texas. It also contains a review of the work of others on the same subject. It is being sold at the office of the BEE JOURNAL. Price, postpaid, 25 cents; or clubbed with the BEE JOURNAL for one year—both together for \$1.15.

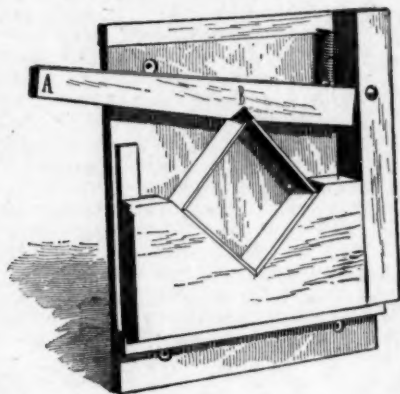
The "Perfection" Section Press.

Written for the American Bee Journal

BY O. H. TOWNSEND.

The accompanying illustration gives an idea of the construction and manner in which the "Perfection" Section Press is operated. I wish to say, however, that the cut does not do justice to the press as now made, for the press presents a much better appearance than it does in the illustration.

The press may be fastened to the wall, or to the front side of a bench, and operated by means of a treadle with a strap attached to the end of the lever marked "A;" but I think a much better way is to secure it to a bench in a hori-



zontal position, with the large notch away from the operator, and the end of lever pointing to the right.

To operate the Perfection section press the section is folded up and placed in the large notch, and the ends brought nearly together inside the notch "B;" hold the section down with the left hand, then give the lever a light, quick stroke with the right hand, and it is done.

I find that with but little practice I can fold nearly 1,000 sections in one hour, and do perfect work. The press is simple, durable, accurate, and rapid and easy to work.

Kalamazoo County, Mich.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for \$1.40.

California vs. Florida, Apiculturally, etc.

Written for the American Bee Journal

BY H. E. HILL.

A well-known contributor to these columns, whose good fortune it is to "sit beneath his own fig-tree" and view the snow-clad peaks against a cloudless sky 300 days in the year, on page 433 assails the rival State of Florida in general, and in his pardonable zeal to set forth the numerous advantages of his marvelously picturesque and productive home State, quite oversteps the bounds of justice in his criticism of the fruit and climate of Florida's East Coast, competitor for honors on these points.

Information regarding California and Florida, apiculturally and otherwise, is eagerly sought by the many bee-keepers of the North who desire to avoid our disastrous winters, and those who contemplate engaging in the honey-producing business, as the marvelous resources of the South and Southwest become better known, and who oftentimes rely largely upon published comments and reports in their selection of a location; and in view of the possibility that a misstatement of facts, or avoidance of the whole truth may incur unwarranted expense, financial loss and inconvenience to a confiding brother, sincerity should be observed in detailing information, remembering that speaking through the medium of the press places us before an audience of thousands.

Mr. Pryal speaks truthfully when he says (of California), "You may live in some charming valley in a home where contentment reigns within, and where roses and other flowers are blooming in profusion without," etc. But why refer to "the death-dealing swamps and sandhills of Florida," in comparison? It is not to either of these features or localities that Florida asks favorable concessions. The comparison is misleading and unjust. No more beautiful hedge of roses blooms in San Bernardino or Orange counties, California, than those which shed their fragrance upon the more tropical air of Florida's counties of Orange and Volusia.

I would not be thought unappreciative of the beauties of California, revealed by a seven months' sojourn within her borders; the fertile valleys under irrigation are phenomenally productive, and portions of which are, perhaps, unsurpassed for honey-production in the United States. Florida may have "death-dealing swamps," but no Death

Valley, with its poison springs, nor hundreds of miles of arid waste and worthless alkali desert.

I have no interest in Florida, neither in California, consequently I believe I am in a position to view the subject from an impartial standpoint, and while, in my opinion, California will not suffer from a general reckoning of advantages and disadvantages, with Florida, I like to see a "fair deal," and a more reliable knowledge of Florida will be obtained by visiting that State than visiting Chicago.

The Florida "sunsets" at the World's Fair, for instance, were a failure. As for the inference as to Florida oranges, it reflects seriously upon the judgment and intelligence of the Eastern consumer, who buys them in preference; and I have no doubt that if Bro. Pryal can make it convenient to call upon Mr. Hart, at his beautiful groves on the banks of the Hillsborough river in Florida, the latter gentleman can soon convince Mr. P., as he has the writer, that California nor any other country can surpass Florida when it comes to beautiful, delicious oranges. No more beautiful groves could exist than Florida possesses in her rural orange counties.

Florida has plenty of "sand," as accused, but nothing to that of the man with a conscience sufficiently elastic to mention it when comparing it with California.

Early in February I visited several apiaries in Florida, in all of which honey was being stored from jessamine, peach and plum, quite rapidly; brood-rearing was well advanced; and since that time one producer reported ten tons of orange-bloom honey. On the Indian river, apiarists were then extracting from pennyroyal, and the main flow is yet to come from mangrove, in July, while the palmetto often yields abundantly in May. Messrs. Alderman & Roberts, of West Florida, last year harvested 45 tons of honey.

As for the "insects," Florida has an abundance—gnats, mosquitoes, fleas, also rattlesnakes, tarantulas, scorpions, and centipedes—to the possession of which the "Golden State" must also confess.

With her numerous crystal lakes and beautiful rivers, abounding in fish, oysters and game, rich hammock lands, frequent spring-like showers, mild seabreezes, and healthful climate, Florida is deserving of a degree of respect far above that accorded by Mr. Pryal, and if "all the claims in favor of Florida" are to be "disproved," I venture the as-

sertion that it will be done by some one that has at least visited the State, and not by mere ridicule emanating from one wholly without knowledge.

Titusville, Pa., April 16.

"Artificially Evaporated Honey."

Written for the American Bee Journal

BY CLARK A. MONTAGUE.

I am compelled to take issue with Mr. G. W. Demaree, on his remarks in regard to "artificially evaporated honey," on page 367. In making his experiment he evidently encountered the very conditions he endeavored to avoid.

A fair comparison on this point can be made *only* during a heavy honey-flow; when combs nearly or quite filled before the capping process commences, can be procured. Then a comparison of this honey properly evaporated, with honey from combs entirely capped over, will be fair, and under no other conditions. Mr. Demaree's comparison was anything but fair.

When a comb contains both capped and uncapped honey, it is evident that the uncapped honey was gathered later, or that its composition is different—a condition frequently met with.

Fourteen years ago I commenced the care of bees, working mostly for extracted honey. I have tried to extract just as soon as the bees commence capping. I did this for the reason that my principal honey-flow came in so fast that to wait for the bees to complete the capping cost me hundreds of pounds of honey. I know this from careful comparison. I put the honey in tin buckets, placed so they were exposed to the sun; and covered with cheese-cloth to keep out dirt. When "ripe" it is put into tanks. Honey extracted at this stage, and carefully ripened, cannot be told with certainty from honey capped over by the bees.

Mark that it is best to put it in small dishes, and it *must* be in a warm, dry atmosphere. Most decidedly this honey is not of a "syrupy" consistency. Neither does it have a flavor of malt. It candies at the usual time, and has the usual appearance and consistency.

I have had to extract a good deal of honey entirely capped over, and with *new comb* it is about as disagreeable a job as one has to do.

As I cannot detect any difference in "texture" or "flavor," I of course do

not claim to be an expert. But thinking this an important point, I give my experience for what it is worth.

Hayes, Md.

Are Queens Injured in Shipping ?

Written for the American Bee Journal

BY H. F. COLEMAN.

By a casual reading of what Mrs. Atchley, Mr. Doolittle, and others have to say on the subject of queens being injured in shipping, one would think there is a great conflict between them, but such is not the case. A careful examination of their writings show that the conflict, if any at all, is very small.

Mrs. Atchley, and those who assert that queens are not injured in shipping, speak of it as a general rule, and are well borne out by the facts. Mr. Doolittle and those who say that queens are injured in shipping, speak of the exception to the rule, and are also well borne out by the facts. Mr. Doolittle's experience is that a queen, taken from a full colony and caged during the height of her egg-laying, is liable to be injured, and in this he is undoubtedly correct, but instances where queens are taken from full colonies and caged in the height of their egg-laying is of rare occurrence, comparatively speaking. Of the thousands of queens reared and shipped annually by Mrs. Atchley, there are but very few, taken from full colonies. Mrs. Atchley, and nearly all other queen-breeders, as a rule, take their shipping-queens from nuclei, and all agree that queens so taken are very seldom injured in shipping.

Mr. Doolittle, as I remember, deals largely in tested queens, and frequently, no doubt, ships from his full colonies—and a full colony means a great deal with him—and no one could be surprised that occasionally he finds a queen that falls behind her former record. Indeed, it would be a surprise if he did not.

My experience coincides with Mrs. Atchley's, but in buying I select, as a rule, warranted queens, and I do not remember that I have ever had a queen that I thought was injured in shipping. I have had some very sorry queens shipped to me, but I have reared some in my own yard equally as sorry.

Sneedville, Tenn.

Have You Read page 771 yet ?



Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Working in Good Earnest.

My bees commenced last week in good earnest. The hives are full of honey now, from Alsike clover. CHAS. F. MUTH.

Cincinnati, O., June 18.

A Dearth of Honey.

We are having quite a dearth of honey in this part of the country now.

Deport, Tex., June 13. W. H. WHITE.

Bees Booming Now, Etc.

Bees have been booming for a week back. Previous to that we had nearly a month of wet and cold. It rained about 24 days in succession, making it impossible for the bees to get a living without my aid. But I think they will pay me now, with interest.

Swarming will be late in this section. I have had four swarms, one absconded, and I only kept one, and it has its hive half full already. White clover and poplar (or tulip) are in bloom now. Basswood makes a good showing now for blossoms.

Up with the AMERICAN BEE JOURNAL and down with adulterators of Nature's delicious sweets!

T. C. KELLY.

Slippery Rock, Pa., June 15.

The Season So Far.

Bees are in good condition now. I had 52 colonies in the spring; in April and May it was wet and cold—very unfavorable for bees until the middle of May, and since then no rain for 30 days, until last evening, when we had a nice shower.

I feed my bees in the spring when the weather is cold and wet, and here is the result:

I have 7 new swarms, one colony has cast three swarms as follows—on the 24th and 29th of May, and on June 2nd. I then cut out three queen-cells, and told them to "hold on."

The white clover has killed out badly, but if the weather is favorable, we will still get a fair yield of honey. I'm not discouraged yet.

L. H. CHILDS.

Beloit, Wis., June 16.

Golden Bees.

The golden bees are as much ahead of the three-banded as the three-banded are ahead of the blacks, in gathering honey, beauty and gentleness. I had one colony (6 pounds of bees) that stored 12 pounds of honey in six hours, bringing it all over one mile. They are called five-banded bees, but still they seldom show bands at all, being solid yellow, except the tip. True, I am a golden breeder, still I could breed the other strain as easily. F. C. MORROW.

Wallaceburg, Ark., June 7.

Bees in Fair Condition.

I have 25 colonies in fair condition. I have kept bees here four years, and have lost but one colony, which was robbed.

J. N. TALKINGTON.

Leonardville, Kans., June 2.

Wintered Finely—White Clover.

Bees wintered finely here, but the four weeks of cold weather in May and June so checked breeding that colonies are not strong enough to gather honey rapidly. White clover is quite plenty now, and we hope everything will "bee" all right yet.

DR. A. C. MATTHIAS.

Gilboa, O., June 14.

The Season Up to June 14th.

I am led to believe Dr. Miller acted very wisely in placing that little word "if" in one of his "Stray Straws"—"if the flowers yield no nectar." Clover is not so very luxuriant in this vicinity, and what there is seems to yield no nectar. On its first appearance the weather was so cold that it produced nothing; neither could the bees gather from it if it had produced, and since then it has been so hot and dry that nothing has been accumulated from it to speak of. And this is the condition of things with me at the present writing.

Bees wintered remarkably well, and also "sprung" well. My loss for winter was only one out of 137 colonies, but I lost several during the spring.

Bees began swarming on May 22nd, and out of several swarms all have cast virgin queens save one; the wings being clipped, I saved her. All did well through fruit-bloom, and have plenty of stores to carry them some time yet. I nourish strong hopes from basswood and sweet clover, as basswood is well filled with buds, and sweet clover—every one knows about how that yields.

At the present writing, the thermometer is bearing heavily toward the 100 mark, and no moisture—not even dew enough to observe in the morning. Such are the conditions of this vicinity, and I fear many others are in like condition.

A. Y. BALDWIN.

De Kalb, Ill., June 14.

Honey & Beeswax Market Quotations.

ALBANY, N. Y., Mar. 23.—The honey market is very slow now. The demand is about over on comb. Some extracted wanted at 6c.; if dark color, 5c.

Beeswax, 26@27c.

H. R. W.

BUFFALO, N. Y., May 14.—Trade is very slow, and we have still a liberal stock on hand. We quote: Fancy comb, 13@14c.; choice, 11@12c.; dark and common grades, 8@9c. Beeswax, 25@30c.

B. & Co.

CHICAGO, ILL., May 10.—The market for comb honey is not of large volume at this season of the year; a fine article of white comb brings 15c. in pound sections. Extracted slow of sale, at 4@6c. Beeswax, 25c.

R. A. B. & Co.

CHICAGO, ILL., Mar. 24.—The honey market will be very quiet for the balance of the season. We will not do much business until new honey comes in. We cannot quote prices but will obtain the best possible price on what little stock we will sell until early fall. Beeswax is very active at 25@26c.

J. A. L.

CINCINNATI, O., June 19.—Demand is slow for all kinds of honey. The range of prices is 4@6c. for extracted, and 12@14c. for best white comb. There is no sale for dark comb honey at any price.

Beeswax is in fair demand at 23@25c. for good to choice yellow.

C. F. M. & S.

KANSAS CITY, MO., Apr. 6.—We have had an exceedingly slow trade on honey this season, and prices ruled comparatively low. We quote to-day: No. 1 white comb, 1-lb., 14@15c.; No. 2, 13@14c.; No. 1 amber, 12@13c.; No. 2, 10@11c. Extracted, 5@7c.

Beeswax, 20@22c.

C.-M. C. Co.

NEW YORK, N. Y., May 25.—New crop of Southern honey is arriving freely. The market is well supplied and demand very light. We quote: Common grade, 50c. per gal.; choice, 55@60c. Beeswax is firm at 28c.

H. B. & S.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 43 South Water St.

R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.

HILDRETH BROS. & SEGELKEN,

28 & 30 West Broadway.

CHAS. ISRAEL & BROS., 110 Hudson St.

Kansas City, Mo.

HAMBLIN & BEARDS, 514 Walnut Street.

CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Buffalo, N. Y.

BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central ave

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